

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claims 1-20 (cancelled)

Claim 21 (new): A shaped microfabricated capillary array electrophoresis chip comprising:

a planar substrate having a first major surface defining converging first and second elongate separation channels,  
wherein each said separation channel extends between an associated cathode port and an anode port defined by said first major surface,

wherein said substrate further comprises a first perimetrical edge segment extending substantially along said first separation channel, and a second perimetrical edge segment extending substantially along said second separation channel.

wherein said substrate further comprises a plurality of separation channel groups, wherein each said separation channel group includes a grouped pair of elongate separation channels extending in fluid communication between a common cathode port and anode port, wherein each separation channel of said grouped pair of separation

channels further includes a loading segment, whereby said first major surface further defines an associated group sample port and a group waste port for each separation channel of said grouped pair of separation channels wherein each associated group sample port and group waste port are in fluid communication across said loading segment of a single separation channel.

Claim 22 (new): A shaped microfabricated capillary array electrophoresis chip according to claim 21, wherein each of said separation channel group extend in fluid communication from a common anode port.

Claim 23 (new): A method for forming a shaped capillary array electrophoresis chip comprising the steps of:

- providing a substantially planar substrate having a first major surface;
- forming first and second converging elongate separation channels in said first major surface;
- forming a first perimetrical edge segment extending along said first separation channel;
- forming a second perimetrical edge segment extending along said second separation channel; and
- forming a plurality of converging elongate separation channel groups in said first major surface, wherein each of said separation channel group includes a grouped pair of

elongate separation channels extending in fluid communication between a common cathode port and anode port, wherein each separation channel of said grouped pair of separation channels further includes a loading segment, whereby said first major surface further defines an associated group sample port and a group waste port for each separation channel of said grouped pair of separation channels wherein each associated group sample port and group waste port are in fluid communication across said loading segment of a single separation channel.

Claim 24 (new): The method of claim 23, wherein said step of forming a plurality of separation channel groups further comprises the step of forming each said grouped pair of separation channels to extend in fluid communication with a common anode port.

Claim 25 (new): A method for forming a shaped capillary array electrophoresis chip comprising the steps of:

providing a substantially planar substrate having a first major surface;  
forming first and second converging elongate separation channels in said first major surface;  
forming a first perimetrical edge segment extending along said first separation channel;  
forming a second perimetrical edge segment extending along said second separation channel; and

forming an additional 46 converging elongate separation channels in said first major surface between said first and second separation channels.